Amendments to the Specification:

Please replace the paragraph beginning at page 10, line 21 with the following amended paragraph:

If the arrival rate (R) is above the input arrival rate threshold (T), then the number of data packets stored on the input queue is compared 174 to an input queue threshold. If the queue threshold has been met, then the contents of the input queue are processed 178. The methods used to process the input queue can be similar to the methods used to process the output queue discussed previously. The input data packets then are transferred 180 to the application program. Once the transfer is complete, the process returns 182 control to the device driver.

Please replace the paragraph beginning at page 11, line 3 with the following amended paragraph:

If the input queue threshold has not been met, then the arrival rate is calculated and compared 176 to the threshold (T). If the arrival rate (R) is above the threshold, then the contents of the queue 50 are processed 178 and transferred 180. If the arrival rate (R) is below the arrival threshold (T), then the input data packet is stored 184 in the queue 50. A software interrupt is scheduled 186 to take place at a future time in the event no later data packets arrive from the network device 12. The process then terminates and returns 182 control to the application program device driver. If no later input data packets subsequently arrive, within a specified time, the interrupt is executed causing the data packet and the input queue to be processed.

Please add the following new paragraph after the paragraph ending at page 1, line 22:
"FIG. 6 is a flow chart of a method of processing data."

Please add the following new paragraph after the paragraph ending at page 11, line 15:

"Referring now to Fig. 6, a method of processing data packets includes receiving 202 data packets either from a program or a device. The method also includes determining 204 an actual arrival rate of data packets and a number of data packets stored in a queue. The actual arrival rate may be determined 204 based on a weighted average of time intervals between a predetermined number of previous data packets. As illustrated, the method also includes initiating transmission 206 of one or more bursts of data packets in the queue based on the actual arrival rate and the number of data packets in the queue. The one or more bursts of data packets each contain a number of data packets sufficient to maximize throughput."

Please add the following new paragraph immediately after the above paragraph:

"The illustrated method includes comparing 212 the actual arrival rate to a first threshold value. If the actual arrival rate is less than a first threshold value, the data packets are stored 208 in the queue and a future interrupt event for processing data packets from the queue is scheduled 210. If the actual arrival rate is greater than the first threshold value, the data packets are transmitted 206 without being stored in the queue. Transmission of data packets may be to either a device or a program. The first threshold value corresponds to a predetermined arrival rate. The method also includes comparing 212 the number of data packets in the queue to a second threshold value. The second threshold value represents a number of unprocessed data packets. "